Listing of the claims including amended claims, cancelled claims and new claims:

1.   (Presently Amended)   A method for real-time analysis of video image data for subject content, said method comprising the steps of:

(a)   performing ~~a single~~ at least one pass through a frame of said video image data; and

(b)   generating a terrain map from said pass through said frame of said video image data, said terrain map comprising a plurality of parameters wherein said parameters indicate the content of said video image data,

_____ said parameters comprising an average altitude parameter; a degree of slope parameter; a direction of slope parameter; a horizontal smoothness parameter; a vertical smoothness parameter; and a jaggyness parameter.

2.   (Original) The method according to claim 1, wherein said parameters are generated by color space calculations, said color space calculations comprising a color degree parameter which measures how far a color is from gray scale.

3.   (Original) The method according to claim 1, wherein said parameters are generated by color space calculations, said color space calculations comprising a color direction parameter which measures color based on a two-dimensional color analysis.

4.   (Presently Amended) The method according to claim 1, wherein said ~~parameters further comprise an~~ average altitude parameter ~~which~~ measures an average value of four pixels in the center of a 2x2 kernel in said frame of said video image data.

5.   (Presently Amended) The method according to claim 4, wherein ~~said parameters further comprise a~~ degree of slope parameter ~~which~~ measures an absolute difference between a highest average value and a lowest average value calculated by said average altitude.

6.   (Presently Amended) The method according to claim 4, wherein ~~said parameters further comprise a~~ direction of slope parameter ~~which~~ measures a direction of slope based on a highest average value and a lowest average value calculated by said average altitude.

7.   (Presently Amended) The method according to claim 1, wherein said ~~parameters further comprise a~~ horizontal smoothness parameter ~~which~~ measures a consistency of change in horizontal direction from a lowest pixel to a highest pixel in said frame of said video image data.

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8.   (Presently Amended) The method according to claim 1, wherein said parameters

~~further comprise a~~ vertical smoothness parameter ~~which~~ measures a consistency of change in vertical direction from a lowest pixel to a highest pixel in said frame of said video image data.

9.   (Presently Amended) The method according to claim 1, wherein ~~said parameters further comprise a~~ jaggyness parameter ~~which~~ measures an offset in pixels between odd and even fields for a target segmented from said frame of said video image data.

10.   (Original) The method according to claim 1, wherein said real-time analysis discriminates between vehicular traffic and pedestrian traffic.

11.   (Original) The method according to claim 10, wherein said real-time analysis further comprises a maintain background function wherein a background is segregated from a moving target by averaging said video image data which contains no said moving target and said moving target is further analyzed to determine if said moving target is a pedestrian or a vehicle.

12.   (Original) The method according to claim 1, wherein said real-time analysis recognizes at least one event which defines the presence of or change in a target within said video image data.

13.   (Original) The method according to claim 12, wherein said events comprise one or more of the following:

    presence of a single person;

    presence of multiple people;

    fast person;

    fallen person;

    lurking person;

    erratic person;

    converging people;

    presence of a single vehicle;

    presence of multiple vehicles;

    fast vehicle; or

    sudden stop vehicle.

14.   (Presently Amended) The method according to claim 1, wherein said parameters further comprise:

    a color degree parameter which measures how far a color is from gray scale;

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a color direction parameter which measures color based on a two-dimensional color analysis; and

said an average altitude parameter which measures an average value of four pixels in the center of a 2x2 kernel in said frame of said video image data;

said a degree of slope parameter which measures an absolute difference between a highest average value and a lowest average value calculated by said average altitude;

said direction of slope parameter which measures a direction of slope based on said highest average value and said lowest average value calculated by said average altitude;

said a horizontal smoothness parameter which measures a consistency of change in horizontal direction from a lowest pixel to a highest pixel in said frame of said video image data;

said a vertical smoothness parameter which measures a consistency of change in vertical direction from a lowest pixel to a highest pixel in said frame of said video image data; and

said a jaggyness parameter which measures an offset in pixels between odd and even fields for a target segmented from said frame of said video image data.

15.   (Presently Amended) A method for real-time analysis of video image data for subject content, said method comprising the steps of:

(a)   performing a single at least one pass through a frame of said video image data; and

(b)   generating a terrain map from said pass through said frame of said video image data, said terrain map comprising a plurality of parameters wherein said parameters indicate the content of said video image data The method according to claim 1, wherein said parameters further comprise:

an average altitude parameter which measures an average value of four pixels in the center of a 2x2 kernel in said frame of said video image data;

a degree of slope parameter which measures an absolute difference between a highest average value and a lowest average value calculated by said average altitude;

direction of slope parameter which measures a direction of slope based on said highest average value and said lowest average value calculated by said average altitude;

a horizontal smoothness parameter which measures a consistency of change in horizontal direction from a lowest pixel to a highest pixel in said frame of said video image data;

a vertical smoothness parameter which measures a consistency of change in vertical direction from a lowest pixel to a highest pixel in said frame of said video image data; and

a jaggyness parameter which measures an offset in pixels between odd and even fields for a target segmented from said frame of said video image data.

16.   (Original) A method for real-time analysis of video image data, said method comprising the steps of:

(a)   performing a single pass through a frame of said video image data; and

(b)   generating a terrain map from said pass through said frame of said video image data, said terrain map comprising a color space calculation wherein said color space calculation comprises:

a color degree parameter which measures how far a color is from gray scale; and

a color direction parameter which measures color based on a two-dimensional color analysis.

17.   (Previously Cancelled)

18.   (Previously Amended) A computer system for automated screening of security cameras, said computer system in communication with a plurality of video cameras and comprising real-time image analysis components wherein video image data from said video cameras is analyzed by said image analysis components and said video image data is then selectively presented to an operator for security monitoring, wherein said computer system further comprises:

at least one video worker, said video worker capturing video image data from said security cameras;

at least one analysis worker, said analysis worker receiving said video data from said video worker and performing image analysis on said video data;

at least one video supervisor, said video supervisor controlling said reception of video data of said analysis worker from said video worker;

at least one node manager, said node manager receiving said video data from said video worker;

a set rules graphical user interface (GUI), said GUI providing an interface to said computer system for required configuration data for said computer system; and

a system arbitrator, said system arbitrator receiving said video data from said node manager and in communication with said set rules GUI,

wherein said arbitrator selectively sends said video data to an operator for security monitoring purposes.

19.   (Original) The computer system according to claim 18, wherein said analysis

worker further comprises a library of functions, wherein said functions manipulate said video data.

20.   (Original) The computer system according to claim 19 wherein said functions

further comprise:

color space calculations, said color space calculations comprising:

a color degree parameter which measures how far a color is from gray scale; and

a color direction parameter which measures color based on a two-dimensional color

analysis.

21.   (Previously Amended) The computer system according to claim 18, said computer

system further comprising:

a pan-tilt-zoom control for manual control of said security cameras by said operator.

22.   (Previously Amended) The computer system according to claim 18, said computer

system further comprising:

an operator console, said operator console comprising a plurality of video monitors;

a central switch which receives input from said security cameras; and

at least one quad splitter, said quad splitter receiving said video data from said central switch

and sending multiple video scenes to one of said video monitors.

23.   (Presently Amended) A computer system for automated screening of security

cameras, said computer system in communication with a plurality of video cameras and comprising

real-time image analysis components wherein video image data from said video cameras is analyzed

by said image analysis components and said video image data is then selectively presented to an

operator for security monitoring, said system providing real-time analysis of said video image data

for subject content and including:

(a)   provision for performing a at least one single pass through a frame of said video

image data; and

(b)   provision for generating a terrain map from said pass through said frame of said

video image data, said terrain map comprising a plurality of parameters wherein said parameters

indicate the content of said video image data,

            said parameters comprising an average altitude parameter; a degree of slope parameter; a

direction of slope parameter; a horizontal smoothness parameter; a vertical smoothness parameter;

and a jaggyness parameter.

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Please add the following new claims:

24.   (New)   A method for real-time analysis of video image data for subject content, said method comprising the steps of:

(a)   performing at least one pass through a frame of said video image data; and

(b)   generating a terrain map from said pass through said frame of said video image data, said terrain map comprising a plurality of parameters wherein said parameters indicate the content of said video image data,

said terrain map containing in said plurality of parameters characteristic information regarding the content of the video, the characteristic information being based on each of kernels of pixels in an input buffer, the characteristic information comprising at least a number of bytes of data describing the relationship of each of a plurality of pixels in a larger kernel surrounding the first-said kernel.

25.   (New)   A computer system for automated screening of security cameras, said computer system in communication with a plurality of video cameras and comprising real-time image analysis components wherein video image data from said video cameras is analyzed by said image analysis components and said video image data is then selectively presented to an operator for security monitoring, said system providing real-time analysis of said video image data for subject content and including:

(a)   provision for performing at least one pass through a frame of said video image data; and

(b)   provision for generating a terrain map from said pass through said frame of said video image data, said terrain map comprising a plurality of parameters wherein said parameters indicate the content of said video image data;

said terrain map containing in said plurality of parameters characteristic information regarding the content of the video, the characteristic information being based on each of kernels of pixels in an input buffer, the characteristic information comprising at least a number of bytes of data describing the relationship of each of a plurality of pixels in a larger kernel surrounding the first-said kernel.

26. (New) A computer system according to claim 25, wherein said parameters comprise:

an average altitude parameter which measures an average value of four pixels in the center of a 2x2 kernel in said frame of said video image data;

a degree of slope parameter which measures an absolute difference between a highest average value and a lowest average value calculated by said average altitude;

direction of slope parameter which measures a direction of slope based on said highest average value and said lowest average value calculated by said average altitude;

a horizontal smoothness parameter which measures a consistency of change in horizontal direction from a lowest pixel to a highest pixel in said frame of said video image data;

a vertical smoothness parameter which measures a consistency of change in vertical direction from a lowest pixel to a highest pixel in said frame of said video image data; and

a jaggyness parameter which measures an offset in pixels between odd and even fields for a target segmented from said frame of said video image data.

27. (New) A computer system according to claim 26, wherein said parameters are generated by color space calculations, said color space calculations comprising a color degree parameter which measures how far a color is from gray scale,

said color space calculations further comprising a color direction parameter which measures color based on a two-dimensional color analysis.

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